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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,707	04/16/2004	Xiaoqiang Luo	YOR920040045USI	3045
35526	7590	02/22/2008		
DUKE W. YEE YEE & ASSOCIATES, P.C. P.O. BOX 802333 DALLAS, TX 75380			EXAMINER NEWAY, SAMUEL G	
			ART UNIT 2626	PAPER NUMBER
			MAIL DATE 02/22/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/826,707

Applicant(s)

LUO ET AL.

Examiner

Samuel G. Neway

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is responsive to the Amendment filed on 28 November 2007.
2. Applicant's Remarks/Arguments filed on 28 November 2007 states that only claims 1 – 4 and 7 – 20 are pending. It is however believed that claims 1 – 20 are still pending as shown in the amended claims filed on the same date.

Response to Amendment

3. The Claim Rejections under 35 USC § 101 are withdrawn in view of Applicant's amendments.

Response to Arguments

4. Applicant's arguments with respect to claims 1 – 20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 – 2, 5 – 13, and 16 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xue et al ("Building a Large-Scale Annotated Chinese Corpus", Proceedings of the 19th International Conference on Computational Linguistics, 2002).

Claim 1:

Xue discloses a method, in a data processing system, for parsing Eastern Asian language character streams (Introduction, lines 1-4), the method comprising:

receiving a corpus of word-based parse trees ("Using the data from the CTB-I ...", page 3, col. 1, Section 1.3.1, lines 1-3);

converting the corpus of word-based parse trees into a corpus of character-based parse trees ("the word segmentation problem can be modeled as an ambiguity resolution problem ...", page 3, col. 2, Section 1.3.1, lines 3-6); and

training a character-based parser using the corpus of character-based parse trees, wherein the character-based parser is used at a character level (page 3, col. 2, Section 1.3.1, lines 36-39), but Xue does not explicitly disclose wherein the character-based parser does not require a separate word-segmenter.

However, it would have been obvious to one with ordinary skill in the art at the time of the invention that a parser trained on a character level does not require a word-segmenter. Since the training is done using a corpus of character based trees, undoubtedly the testing data will be parsed at the character level without a separate word segmenter.

Claim 2:

Xue discloses the method of claim 1, wherein each word-based parse tree in the corpus of word-based parse trees includes a word tag for each word in the word-based parse tree (Introduction, page 1, col. 1, lines 1-4).

Claim 5:

Xue discloses the method of claim 1, wherein training the parser includes forming a model (page 3, col. 2, Section 1.3.1, lines 36-39).

Claim 6:

Xue discloses the method of claim 5, further comprising: providing the model to a decoder, wherein the decoder parses Eastern Asian language character streams at a character level using the model ("testing", page 3, col. 2, Section 1.3.1, lines 36-39).

Claim 7:

Xue discloses the method of claim 6, further comprising: receiving a test sentence, wherein the test sentence is an Eastern Asian language character stream; and parsing the test sentence using the decoder to form one or more character-based parse trees ("testing", page 3, col. 2, Section 1.3.1, lines 36-39).

Claim 8:

Xue discloses the method of claim 1, wherein training the parser includes training the parser using maximum-entropy method (page 3, col. 2, Section 1.3.1, lines 36-39).

Claim 9:

Xue discloses the method of claim 1, wherein the Eastern Asian language is one of Chinese, Japanese, and Korean ("Using the data from the CTB-I ...", page 3, col. 1, Section 1.3.1, lines 1-3).

Claim 10:

Xue discloses the method of claim 1, wherein the corpus of word-based parse trees is a Chinese Treebank ("Using the data from the CTB-I ...", page 3, col. 1, Section 1.3.1, lines 1-3).

Claim 11:

Claim 11 is similar in scope and content to claim 1 and is rejected with the same rationale.

Claims 12 – 13, and 16 – 20:

Claims 12 – 13, and 16 – 20 are similar in scope and content to claims 1 – 2, and 5 – 10 and are rejected with the same rationale.

7. Claims 3 – 4 and 14 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xue et al (“Building a Large-Scale Annotated Chinese Corpus”, Proceedings of the 19th International Conference on Computational Linguistics, 2002) in view of Luo (“A Maximum Entropy Chinese Character-Based Parser”, Proceedings of the 2003 Conference on Empirical Methods in Natural Language Processing, July 2003, pp 192-199).

Claim 3:

Xue discloses the method of claim 2, but does not explicitly disclose assigning tags based on word tags as claimed.

Luo discloses converting a corpus of word-based parse trees into a corpus of character-based parse trees wherein converting the corpus of word based parse trees includes assigning a word position tag to each character in the character-based parse tree based on the word tag for each word in the word-based parse tree (Section 2, col. 2, lines 14-17).

It would have been obvious to one with ordinary skill in the art to have assigned tags based on word tags in Xue method in order maintain part of speech information in the character-based parse trees.

Claim 4:

Xue and Luo disclose the method of claim 3, Xue further discloses wherein the word position tag is one of a beginning tag, a middle tag, and an end tag (page 3, col. 2, Section 1.3.1, lines 30-34).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel G. Neway whose telephone number is 571-270-1058. The examiner can normally be reached on Monday - Friday 8:30AM - 5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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